

AMENDMENT TO THE CLAIMS

1. (Previously presented) A method of producing a mounting structure comprising:
 - a connecting step of flip-chip mounting a semiconductor device onto a substrate;
 - a bonding step of bonding a region of said semiconductor device to a region of said substrate by means of an adhesive;
 - a testing step of performing a test of electrical properties on said semiconductor device and said substrate that are connected to each other; and
 - a separating/sealing step of separating said semiconductor device from said substrate after heating a bonding place of said adhesive up to a temperature higher than a glass transition point or a melting point of said adhesive if it is determined that said electrical properties are poor in said testing step, and sealing said semiconductor device and said substrate by means of a sealing resin if it is determined that said electrical properties are good in said testing step.
2. (Original) A method of producing a mounting structure according to claim 1, wherein an electrically conductive adhesive used in said connecting step comprises a thermoplastic resin.
3. (Original) A method of producing a mounting structure according to claim 1, wherein said adhesive used in said bonding step comprises a thermosetting resin.

4. (Original) A method of producing a mounting structure according to claim 3, wherein said adhesive is cured at a temperature lower than said glass transition point of said adhesive in said bonding step.

5. (Original) A method of producing a mounting structure according to claim 1, wherein said adhesive used in said bonding step comprises a low melting point metal.

6. (Original) A method of producing a mounting structure according to claim 1, wherein said semiconductor device is separated from said substrate by applying a torsional force to said adhesive in said separating/sealing step if it is determined that said electrical properties are poor in said testing step.

7. (Previously presented) A method of producing a mounting structure comprising:

a connecting step of flip-chip mounting a semiconductor device onto a substrate;

a bonding step of bonding a region of said semiconductor device to a region of said substrate by means of an adhesive;

a peeling permitting layer forming step of forming a peeling permitting layer on an adhesive abutting region of said semiconductor device and/or an adhesive abutting region of said substrate, said peeling permitting layer forming step being performed before said bonding step;

a testing step of performing a test of electrical properties on said semiconductor device and said substrate that are connected to each other; and

a separating/sealing step of separating said semiconductor device from said substrate if it is determined that said electrical properties are poor in said testing step, and sealing a gap between said semiconductor device and said substrate by means of a sealing resin if it is determined that said electrical properties are good in said testing step.

8. (Original) A method of producing a mounting structure according to claim 7, wherein said semiconductor device is separated from said substrate by applying a torsional force to said adhesive in said separating/sealing step if it is determined that said electrical properties are poor in said testing step.

9. (Original) A method of producing a mounting structure according to claim 7, wherein a fluororesin layer that weakens a bonding force of said adhesive is formed as said peeling permitting layer in said peeling permitting layer forming step.

10. (Original) A method of producing a mounting structure according to claim 9, wherein said adhesive is separated from said peeling permitting layer after softening said adhesive to weaken said bonding force of said adhesive by heating up to a temperature higher than a glass transition point or a melting point of said adhesive in said separating/sealing step if it is determined that said electrical properties are poor in said testing step.

11. (Original) A method of producing a mounting structure according to claim 7, wherein a layer having a bonding force that weakens by a predetermined process is formed as said peeling permitting layer in said peeling permitting layer forming step.

12. (Original) A method of producing a mounting structure according to claim 11, wherein a substance having a bonding force that weakens by swelling through reaction with a solvent is formed as said peeling permitting layer in said peeling permitting layer forming step, and

said semiconductor device is separated from said substrate after swelling said peeling permitting layer to weaken said bonding force by adding a solvent to a bonding interface between said peeling permitting layer and said adhesive in said separating/sealing step if it is determined that said electrical properties are poor in said testing step.

13. (Original) A method of producing a mounting structure according to claim 11, wherein a substance having a bonding force that weakens by foaming through a heating process is formed as said peeling permitting layer in said peeling permitting layer forming step, and

said semiconductor device is separated from said substrate after foaming said peeling permitting layer to weaken said bonding force by heating a bonding interface between said peeling permitting layer and said adhesive in said separating/sealing step if it is determined that said electrical properties are poor in said testing step.

14. (Original) A method of producing a mounting structure according to claim 11, wherein a resin having a glass transition point or a melting point that is lower than said adhesive is formed as said peeling permitting layer in said peeling permitting layer forming step, and

said semiconductor device is separated from said substrate after selectively softening said peeling permitting layer to weaken said bonding force by heating a bonding interface between said peeling permitting layer and said adhesive up to a temperature which is higher than a glass transition point or a melting point of said peeling permitting layer and lower than a glass transition point or a melting point of said adhesive if it is determined that said electrical properties are poor in said testing step.

15-20. (Canceled)

21. (Previously presented) A method of producing a mounting structure according to claim 1, wherein said connecting step includes electrically connecting an electrode pad of the semiconductor device to a terminal electrode of the substrate using an electrically conductive adhesive.

22. (Previously presented) A method of producing a mounting structure according to claim 1, wherein each of said regions in said bonding step is not involved in an electrical connection.

23. (Previously presented) A method of producing a mounting structure according to claim 7, wherein each of said regions in said bonding step is not involved in an electrical connection.

24. (Previously presented) A method of producing a mounting structure according to claim 1, wherein said bonding step includes curing said adhesive.

25. (New) A method of producing a mounting structure according to claim 22, wherein the adhesive at each of said regions is selectively heated in said separating step.